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## WHAT IS CLAIMED IS:

- 1. A two-dimensional phase type element having plural segments, wherein an alignment error between segments is limited to a local portion.
- 2. A method of manufacturing a two-dimensional phase type element, comprising the steps of:

forming, on a substrate, a first etching mask in a checkered pattern; and

performing an etching process while using the mask as a reference.

3. A method of manufacturing a two-dimensional phase type element, comprising the steps of:

forming, on a substrate, a first etching mask in a checkered pattern;

forming segments of multiple levels at a portion not covered by the first mask;

forming a second etching mask corresponding to an inversion of the first etching mask;

removing the first etching mask; and forming segments of multiple levels at a portion not covered by the second etching mask.

4. A method according to Claim 2 or 3, wherein the first exching mask is formed by a chromium film.

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- A method according to Claim 2 or 3, wherein the first etching mask consists of aluminum.
- A method according to Claim 2 or 3, wherein the first etching mask consists of aluminum and wherein the second etching mask consists of chromium.
  - A method according to Claim 2 or 3, wherein 7. the first etching mask consists of chromium and wherein the second etching mask consists of aluminum.
  - A method according t $\phi$  any one of Claims 2 -7, wherein the substrate contains quartz.
  - A method according to any one of Claims 2 -8, wherein a reticle having an optical proximity effect correcting pattern is used to form the etching mask of checkered pattern through photolithography.
- 20 A method according to any one of Claims 2 -10. 9, wherein the etching process is carried out by use of the etching mask and an etching mask formed by a resist.
- 25 A method according to any one of Claims 2 -10, further comprising molding an element while using, as a mold, & substrate on which plural segments of

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multiple levels are formed.

- 12. A method according to any one of Claims 2 11, wherein the method is usable to produce one of a phase type computer generated hologram, a two-dimensional binary structure, and a phase modulation plate.
- 13. An illumination system including a twolo dimensional phase type element manufactured in accordance with a method as recited in any one of Claims 2 12.

14. A projection exposure apparatus having an illumination system as recited in Claim 1/3.

15. A device manufacturing method, comprising the steps of:

exposing a wafer to a device pattern, by use
of a projection exposure apparatus as recited in Claim
14; and

developing the exposed wafer.

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